

INSTRUCTION MANUAL FOR USE AND INSTALLATION



profile-manager 3.4

**The powerful software for the PC-supported
blood pressure control and observation of therapy.**

Compatible with the following blood pressure meters:

- boso-TM-2430 PC (2)
- boso-TM-2420
- boso-medilife PC (2, 3)
- boso-medicus PC (2)

At the forefront of progress.

boso
BOSCH + SOHN
GERMANY

The present edition of the installation- and users instructions for the boso profile-manager 3 are valid as of version 3.4.0. For any new information, please refer to file *readme.txt* on the installation-CD.

The drive assembly letters in this instruction manual are exemplary selected:

C:\ for the local non removable disc

D:\ for the CD drive assembly

The path data correspond to a standard installation under German Windows XP operating system and may deviate under other operating systems or language versions.

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<Contents>

Scope of supply boso profile-manager 3	7
System Requirements	7
Before Installation	8
● Data security	8
● Working with the program	8
Instructions for installation of boso profile-manager 3	9
1. Installation of boso profile-manager 3	9
2. Installation of a firebird-server	9
3. Convert data from profile-manager2	13
Installation in a network	17
Instruction to installation of USB-connecting cable	18
Instructions for usage the boso profile-manager 3	22
● General instructions	22
● Re-organisation of data	23
◆ Patient	24
● Select patient	24
● New	24
● Edit	25
● Delete	25
● Print	25
● Export	25
● Import	25
● Printout	25
◆ Initialize TM 2430	27
◆ Programming TM 2430	30
1. Standard cycles/intervals	30
2. Sleeping button	30
3. Programmable cycles/intervals	31
● „Show measurements“	31
● „Device number“	31
● „Assign PC time“	31
◆ Programming TM 2420	31
1. Standard cycles/intervals	32

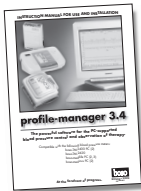
2. Programmable cycles/intervals	32
● „Show measurements“	32
● „Signal before measurement“	32
● „Device number“	32
● „Assign PC time“	32
◆ Setup	
● Profile	33
● Interface	33
● Printout	34
● Import/Export	35
● Physician	36
● Limits	36
◆ Edit	
● Exclude measurements	37
● Manual measurement values	38
● Transmit measurement values	38
● Transfer Measurements	39
● Manual Export	40
● Profile SYS/DIA	40
● Profile MAP	42
● Profile PP	43
● Statistics	45
● Morning blood pressure surge (MBPS)	46
◆ Instructions for use (short version)	47
◆ Warranty	48
Appendix A	
◆ What to do when there is a failure/problems	49

profile-manager 3, Scope of supply

1 Installation CD



1 Instruction manual



System Requirements

Hardware:

- Pentium II or higher
- 8 MB RAM
- VGA Card
- 100 MB free Hard Disk Storage
- Series Interface (COM 1 - COM 4) or
- USB Interface

Software:

- Microsoft Windows XP
- Microsoft Windows Vista
- Microsoft Windows 7

Before Installation...

By choosing the profile-manager 3 you have decided on a software which gives you optimum results with minimum input time. This program has been devised to give an immediate overview of all functions. There are no complicated menus. The setup of the profile-manager is designed as if it was a filing system with individual files. For this reason the individual index / folders or program parts are also called „files“ in the users instructions.

Data Security

To avoid loss of data it is strongly recommended to regularly back-up the files ‘boso_tm+pm.gdb’ and ‘profman.ini’ out of folder *\Dokumente und Einstellungen\All Users\Anwendungsdaten\Boso\Profman.*

Working with the program

The program can be operated with the mouse and the full keyboard. The individual functions within the program are selected via the keyboard by pressing the [Alt] key together with the relevant underlined letter.

Requirements on the personal computer

Any computer used in the data evaluation must comply with the European Standard 60601-1.

1. Installation of boso profile-manager 3

To install the boso profile-manager 3 please start file

D:\install.exe

manually or automatically after you have inserted the CD-ROM as the installation-CD has an automatic start function.

Right after the start the appropriate language can be chosen from following selection: German, English (A4), English (US-letter), French, Spanish, Danish, Polish.

The installation-process runs automatically after the installation path has been entered.

Before starting the boso profile-manager 3 the firebird server has to be installed as described as follows in 2.

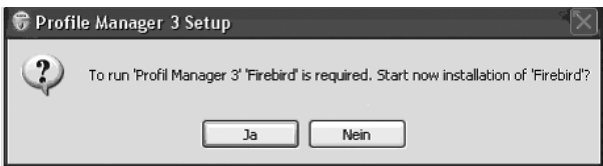
2. Installation of a firebird-server

Prior to the start of the boso profile-manager 3 the firebird-server has to be installed.

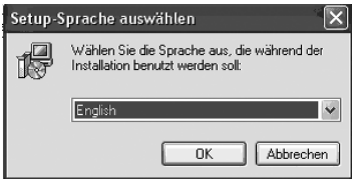
IMPORTANT NOTICE:

Please check, whether a firebird-server has already been installed on the computer.

If there is a firebird-server already installed on your computer, the question for installation must be answered with "NO":



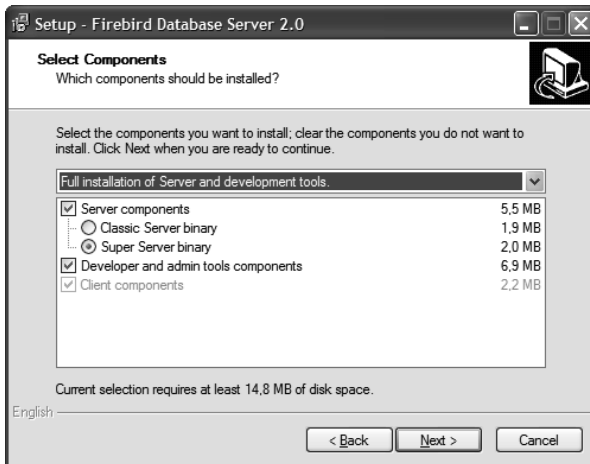
Choose the language for installation of firebird-server:



Follow the installation



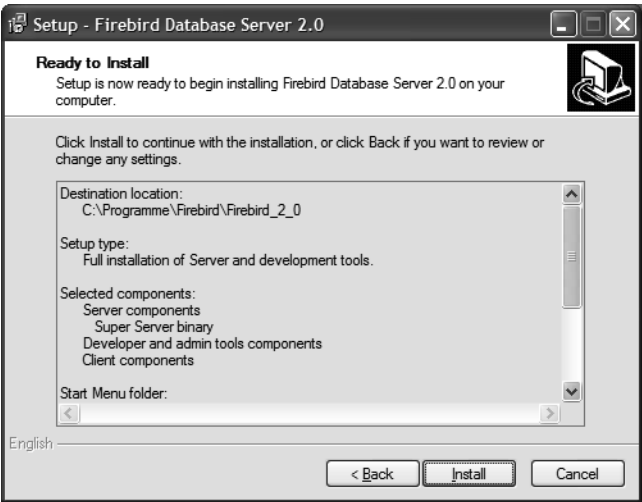
Please stay with all suggested components of the default setting.



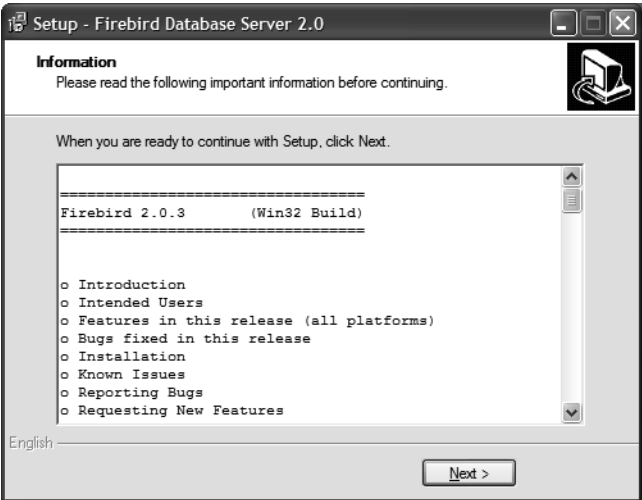
Also the selection of additional tasks should not be changed (**Except using Microsoft Vista: Deactivate the Click-box "Install control panel applet?"**. Otherwise the control panel of Microsoft Vista will be blocked!)



Finally you will see a catalogue of the selected installation parameters, which have to be installed.



After confirmation of these parameters the firebird-server will be installed on your computer.





After successful installation of boson-profile-manager3 and the firebird-server please re-start your computer.

The software now can be started clicking onto the icon "Profman3"



ProfMan3

3. Convert data from profile-manager2

To convert existing data from a former dBase-database, the following program has to be used:

C:\program files\profman3\konverter\konverter.exe

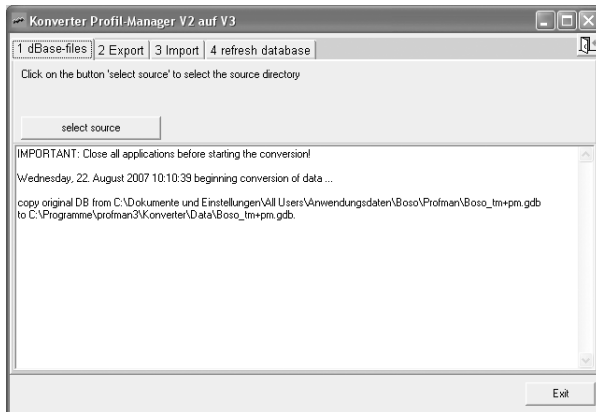
Notice:

Under operating system Microsoft Vista please execute "konverter.exe" as administrator.

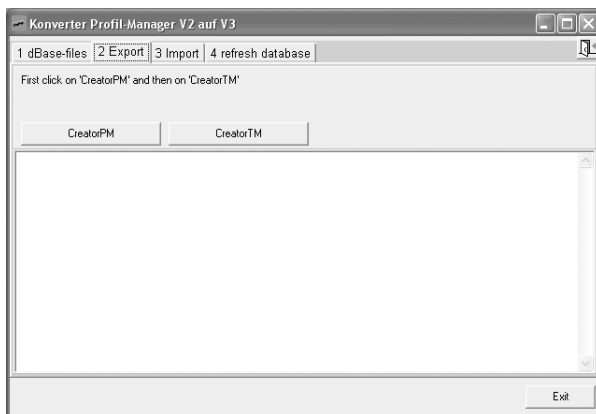
Follow the given registers:

Choose in register "1. dBase-files" the source folder of the data that will be converted. Usually you find it in:

C:\program files\profman\data



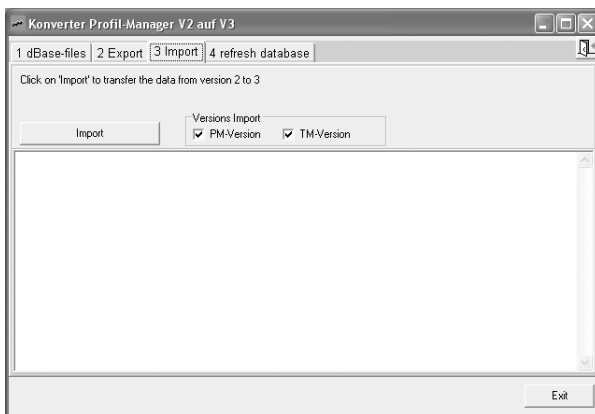
Start the export of data "profman" (medicus PC 2, medilife PC 2(3)) in the register "2. Export". To do this click the button "CreatorPM"



Now start the export of data "pm24" (TM2430) which also can be found in the register "2. Export". To do this click the button "CreatorTM".

All data now is exported from dBase.

In register "3. Import" the data can be imported into firebird by clicking the button "Import"



With both ticks "PM-version" (medicus PC 2, medilife PC 2(3)) as well as "TM-version" (TM-2430 PC 2) all data are imported from both program-parts at the same time.

boso profile-manager3 manages patient-ID-numbers with maximum 10 digits. If the patient-ID-numbers have more than 10 digits the last 10 digits are taken from the longer number.

In register "4. refresh database" the folder for the data has to be chosen from the list. Usually it is: \Dokumente und Einstellungen\All Users\Anwendungsdaten\Boso\Profman



After this up-date all data of version 2 are available in version 3 of boso profile-manager are ready to be used.

Installation in a network

- Install the boso profile-manager3 and the Firebird Server on each workstation and on the server computer.
- After successful installation on the server computer the file paths have to be adapted on each workstation computer
- To adapt the paths the entry "DataBase=" in file C:\Dokumente und Einstellungen\All Users\Anwendungsdaten\Boso\Profman\profman.ini has to be changed as follows:

standard entry: DataBase=localhost:C:\Dokumente und
Einstellungen\All Users\Anwendungsdaten\Boso\
Profman\BOSO_TM+PM.GDB

network entry: DataBase=IP_SERVER:C:\Dokumente
und Einstellungen\All Users\Anwendungsdaten\Boso\
Profman\BOSO_TM+PM.GDB

"IP_SERVER" stands for the IP-adress of your network-server.

Example for a network-entry:

DataBase=192.168.0.1:C:\Dokumente und Einstellungen\
All Users\Anwendungsdaten\Boso\Profman\
BOSO_TM+PM.GDB

Instruction to installation of USB-connecting cable

- Plug the USB-connecting cable into a free USB-connecting-jack at your computer
- WINDOWS will automatically identify your USB-connecting cable and will ask you to install the driver



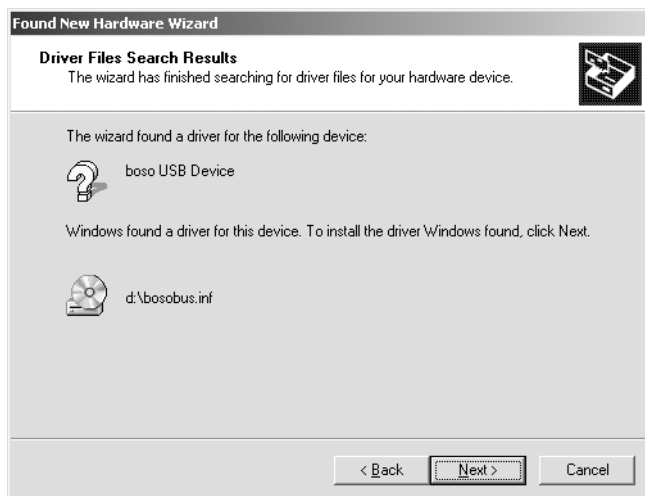
- Skip the search of the internet
- Select the search of a suitable driver



Insert the CD-ROM with the installation software into your CD-drive.
Select CD-ROM drive.

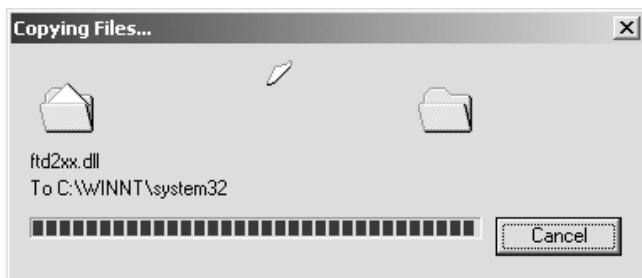


- Confirm the found driver as shown below (if more than one driver is found, confirm the highlighted one):



Please ignore the possibly appearing following messages:

- The driver has no digital signature
- The driver failed the Windows logo test
- The USB-driver now will be installed.



- Confirm "Finish" to complete the installation:



As the driver includes the installation as a direct USB-connection and also as a virtual COM-connection, the steps as described above have to be done again.

Please confirm at the end again with "Finish".



The USB-connecting cable now can be used.

Instructions for usage the boso profile-manager 3

Select the relevant part of the program for your blood pressure instrument.

To start processing of data from boso-medicus PC 2 or boso-medilife PC 2(3), click the window on the left to start the program "profman.exe"

To start processing of data from boso-TM2430PC 2, click the window on the right to start the program "profman24.exe"



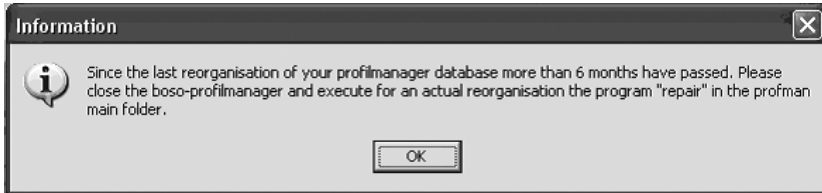
GENERAL INSTRUCTIONS

The software can be operated either using the mouse or the computer keyboard (ALT+underlined letter).

The following instructions are done using screen shots of the TM2430PC 2-version. The medicus PC 2/ medilifePC 2(3)-version may have slightly differing functions. Please mind the relevant notes (set off with "*Deviation profman.exe*").

Re-organisation of data

6 months after the first installation of boso profile-manager3 you find the following window after starting the program:



(This window won't occur after the Repair-routine has been executed)

To avoid severe damages of data base files, a frequent re-organisation of the data base is recommended. Please re-organise the data base regularly at least after 6 months.

To commence the re-organisation of the data base please start the program "repair.exe", which you can find in the folder of your boso profile-manager3

(standard "C:\program files\profman3" or under the START-menue "all programs --> profman3 --> programs --> repair".

In case you re-organise the data base directly on your server computer, the entry

`"CleanDate=27.04.2005"`

will not be up-dated automatically in the file "profman.ini" out of the installation folder of your client computer.

In this case, please set

`"CleanDate=27.04.2099"`

to avoid the frequent display of this reminder on the client-computer.

Patient

The screenshot shows the 'profile-manager 3' application window. The title bar reads 'profile-manager 3 TM-2420/TM-2430 3.4.0 - Patient: Profilman, David'. The menu bar includes 'Patient', 'Edit', 'Profile SYS/DIA', 'Profile MAP', 'Profile PP', and 'Statistics'. The main interface is divided into several sections:

- Search for:** A text input field.
- Arrange according to:** A dropdown menu with 'Name' selected.
- Patient List:** A list box containing 'Profilman, David - 1982378913'.
- Select Patient:** A large button.
- Buttons:** 'New ...', 'Edit ...', 'Delete', 'Print', 'Export', 'Import', 'Setup ...', 'Printout', 'Exit', 'initialize unit', and 'read measurements'.
- Patient Details:** A section displaying patient information:

Patient No.	1982378913
Last Name	Profilman
First Name	David
Address	Musterstraße 99
City	12345 Musterhausen
Security No.	99999999999
Date of Birth	04.11.1970
Height	175,50 cm
Weight	75,50 kg
Sex	Male
- boso:** A logo in the bottom right corner.

Select patient

To work with a patient's data (show measurement values, transmit data, modify patient's address) the relevant patient has to be selected by marking the name on the list and then click **"Select Patient"**. You may also **double-click** the name of the patient in the list. With an activated patient the colour of the button "Select Patient" switches from red to black.

Using "Arrange according" the patients can be arranged according to "Name" or according to the "Patient No."

If you have transmitted data of your patient information system and the data is already entered in the boso profile-manager3, the patient in progress is also activated in boso profile-manager3 automatically.

New

Click "New..." to enter a new patient into the database.

If you have patient data in your PIT, the data of the patient in progress will be entered automatically.

Edit

Click "**Edit**" to up-date existing data of a patient.

Delete

Click "**Delete**" to remove a patient's data definitely.

Print

Click "**Print**" to print all data of a particular patient.

Export

Click "**Export**" to transmit a complete set of data (patient's address including measurement values) to file. The data export is entered into the file which has been registered under "Setup" --> "Import/Export" using the filename <patientname>.txt

Import

Similar to "**Export**" you select "**Import**" to import patient data into the boson profile-manager 3. All measuring data and the complete patient data of a patient from the export path registered under "Setup" --> "Import/Export" are imported.

Printout

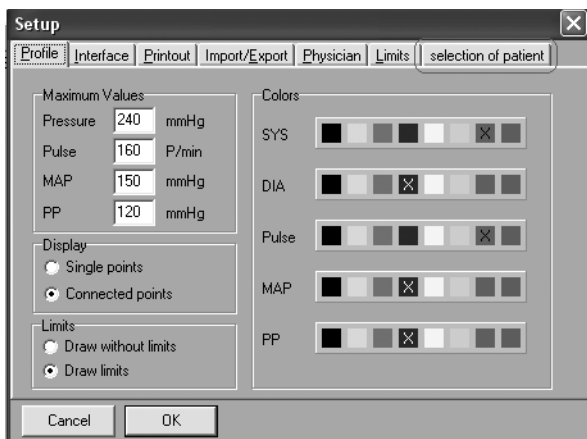
Click "**Printout**" to print only the pages which have been selected in "Setup" --> "Printout"

Initialize TM2430

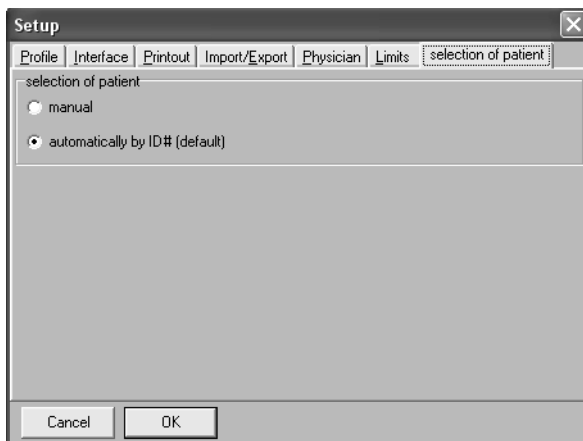
(Deviation profman.exe: the function "initialize unit" is not available.)

Your bosoTM2430PC 2 can be identified with a 10-digit-number. This offers the opportunity to assign the measuring data directly to a specific patient in the software as soon as the measuring data is transmitted from the BP-instrument to the computer.

To de-activate this function click "Setup" and then "selection of patient".



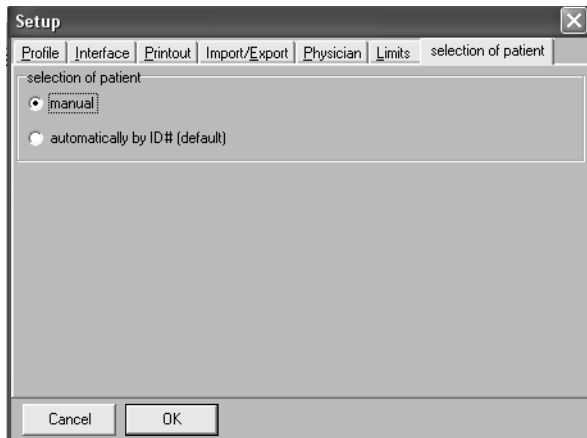
Default is "automatically by ID#".



Notice:

To use elder
boso-TM2430-
instruments with
serial number
<0713550
please select
"manual" in this
window.

To de-activate please click "manual" and enter with "OK".

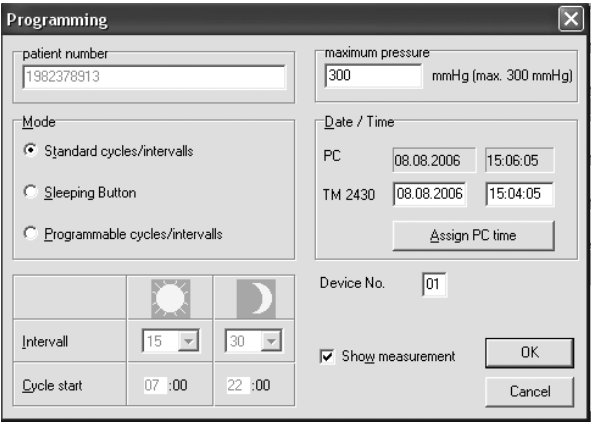


Programming can be done as described below in "Programming TM2430".

To initialize the blood pressure instrument, select a patient from the list by marking the patient and clicking and "Select Patient" afterwards. The button "Select Patient" then will turn from red to black.



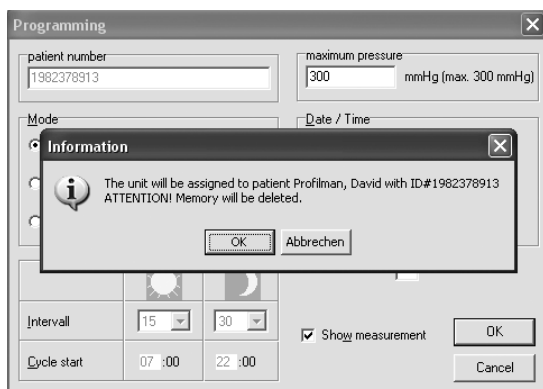
By clicking "Initialize unit" you enter the window "Programming"



Automatically the number of the selected patient will be shown in the line "Patient number".

Here the "maximum pressure" can be defined in this window. This limits the inflation of the BP-instrument to avoid harm of a patient. PLEASE NOTE: If systolic blood pressure of a patient is about this value, the BP-instrument cannot take a BP-value as an inflation of Sys + 30mmHg is required to receive a reliable measurement. If the limit is not high enough, the BP-instrument will show error. All other programming opportunities match the functions described in the paragraph below "Programming TM2430" in this instruction manual.

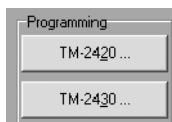
By clicking "OK" the selection of the patient is confirmed. To avoid mistakes, the memory will be deleted after each initialisation.



After the BP-instrument is brought back with the patient's measuring values, the data is transmitted from the BP-instrument to the computer by clicking "read measurements". The data automatically is assigned to the relevant patient with this patient number.

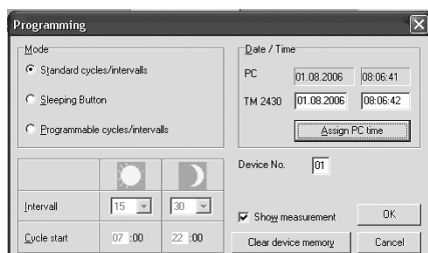


Programming TM2430 (Alternatively to Initialize TM 2430)
(Deviation profman.exe: the function "Programming TM2430" is not available.)



To activate this function click "Setup" and then "selection of patient". Default is "automatically by ID#". If the mode "manual" has been selected the following dialogue will appear.

Choose **"Programming TM2420/TM2430"** to change settings of your 24-hour-bloodpressure-instrument such as date, time, cycles etc.



The boso-TM2430PC 2 can be programmed in three different modes:

1. Standard cycles/intervals

If this mode is chosen, the instrument will do a measurement every 15 minutes in the time 7:00 h – 22:00 h. During the period 22:00 h – 7:00 h, the interval in between two measurements is 30 minutes.

2. Sleeping button

Using this mode the patient can decide himself by pressing the black button **"Auto"** on the boso-TM2430PC 2 when to start the night-cycle and when to start daytime cycle. This mode is very useful if a patient for example works on shift. He then can decide on his own, when to start daytime-intervals of 15 minutes and when to swap to night-time intervals of 30 minutes.

3. Programmable cycles/intervals

In this mode, the intervals both for daytime measurement and night-time intervals can be set individually.

One can choose the interval 5, 10, 15, 20, 30, 60, 120 minutes.

"Show measurement"

Ticking "show measurement" activates the display of measurement values on the TM2430PC 2, so that the patient can see the value after each measurement.

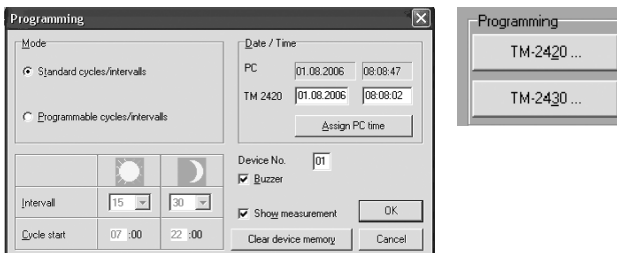
"Device number"

You can assign an individual number to each boso-TM2430PC 2 (01 – 63)

"Assign PC time"

You can assign the date and time of your PC to the boso-TM2430PC 2.

Programming TM2420



The boso-TM2420PC can be programmed in two different modes:

1. Standard cycles/intervals

If this mode is chosen, the instrument will do a measurement every 15 minutes in the time 7:00 h – 22:00 h. During the period 22:00 h – 7:00 h , the interval in between two measurements is 30 minutes.

2. Programmable cycles/intervals

In this mode, two different cycles and intervals can be set individually. One can choose the cycles "without", 1, 3, 5, 10, 15, 20, 30, 60 minutes.

"Show measurement"

Ticking "show measurement" activates the display of measurement values on the TM2420PC, so that the patient can see the value after each measurement.

"Signal before measurement"

Ticking "signal before measurement" activates a signal tone which indicates the start of a measurement of the TM2420PC.

"Device number"

You can assign an individual number to each boso-TM2420PC (01 – 63)

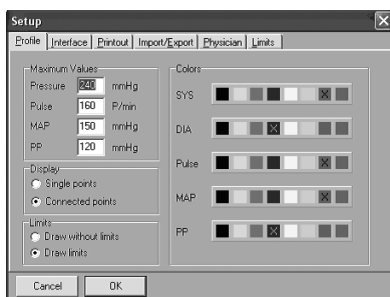
"Assign PC time"

You can assign the date and time of your PC to the boso-TM2420PC.

Setup

Click "**Setup**" to individually define the settings of your boso profile-manager3 software.

Profile



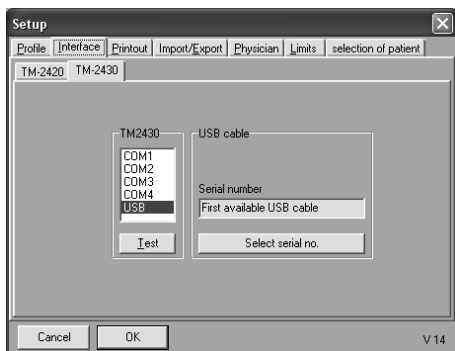
The register "**Profile**" offers the opportunity to define colours, different maximum values and other designs of the layout.

Interface

The register "**interface**" allows to choose the port (serial port or USB) which connects the computer to the PC-connecting cable (TM2430PC2) respectively the TM2020 or 2023 (TM2420). Default is USB.

Please note that there are two registers: one for TM2420 and one for TM2430 to ensure the port is defined for the appropriate unit (TM2420 or TM2430).

With the **Test** -button the availability of the selected port can be examined.

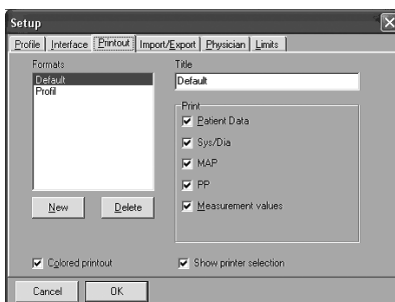


If you use an USB-connecting cable please select the USB-interface through the setting "setup --> Interface" in your boson profile-manager3 software.

Notice:

If different boson-USB cables are used at one computer, please select the serial number of the USB cable connected to your blood pressure device. As default the first available USB cable is selected.

Printout



Besides the two given layouts "Default" and "Profile" you have the opportunity to define own layouts. Click "New" to create a layout by clicking the various pages

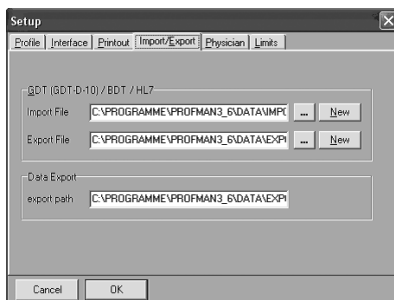
- patient data
- PP
- Sys/Dia
- Measurement values
- MAP

that should be printed. Enter a title for the new Printout, which will be printed if you click the icon  later.

If you use a coloured printer you may also do the printout in colours. Please note that the colouring of the printout may differ from your computer screen.

If the printout has to be done on a printer which is not a Windows-Standard-printer, you can select it by activating "show printer selection".

Import/Export



Register **Import/Export**.

GDT/BDT/HL7

(These are German standards for patient information systems)

If you use a patient information system which runs on a GDT-, BDT- or HL7-protocol, the relevant paths and file names can be defined for importing or exporting data.

The file extension *.gdt or *.bdt or *.hl7 determines the data format.

Export of data only works if the imported patient is active. Export automatically takes place if you exit the boson profile-manager3 (if the measurement values have been transmitted from the boson-TM2430PC 2 during the session). Manually you can initiate an export of data if you click "man. Export" in the register "Edit"

IMPORTANT NOTICE:

Data export is de-activated if another patient has been selected after automatic import. It is activated again, as soon as the former patient is selected again.

Data-Export

Here the file path for import or export of patient data is defined.

Physician

Please enter your address, which then will be printed on the bottom line on all printouts.

Limits

	Systole [mmHg]	Diastole [mmHg]	Pulse [1/sec]	MAP [mmHg]	PP [mmHg]
Complete	130	80	100	100	50
Day	135	85	100	110	50
Night	120	75	100	90	45

Register „Limits“

To ensure an individual analysis, the limits can be defined for different cycles, i.e. an individual limit for daytime and for night-time.

The beginning and end of daytime cycle or night-time cycle is entered in "Programming TM-2420 / TM2430" (see previous pages)

EDIT

No.	Date	Time	SYS	DIA	Pule	MAP	PP	Exc	Comment
1	Mo 16.05.2005	15:00	110	80	94	90	30		
2	Mo 16.05.2005	15:15	116	88	86	97	28		
3	Mo 16.05.2005	15:30	119	84	74	96	35		
4	Mo 16.05.2005	15:45	122	82	78	95	40		
5	Mo 16.05.2005	16:00	112	105	62	107	7		
6	Mo 16.05.2005	16:15	118	107	74	111	11		
7	Mo 16.05.2005	16:30	133	89	87	104	44		
8	Mo 16.05.2005	16:45	135	101	72	112	34		
9	Mo 16.05.2005	17:00	114	89	78	97	25		
10	Mo 16.05.2005	17:15	117	104	71	108	13		
11	Mo 16.05.2005	17:30	124	84	94	97	40		
12	Mo 16.05.2005	17:45	118	103	99	108	15		
13	Mo 16.05.2005	18:00	124	106	93	112	18		
14	Mo 16.05.2005	18:15	110	84	65	93	26		
15	Mo 16.05.2005	18:30	125	80	83	95	45		
16	Mo 16.05.2005	18:45	110	103	86	105	7		
17	Mo 16.05.2005	19:00	133	101	82	112	32		
18	Mo 16.05.2005	19:15	116	100	83	105	16		

The register **"Edit"** shows all measurement data for the relevant patient. Next to the time range in which the measurements have been taken the instrument which took the measurements is indicated (if data have been imported, the word "import" is shown). You can add comments to the measurement values as well as exclude particular values from the analysis.

To add a comment to a measurement value, double-click the column **"Comment"** in the applicable line and enter your remark. Finish the with <Enter>. Comments are marked with a little pointer in the profile diagrams.

(Deviation profman.exe: If all "All time ranges" is activated, all data is assessed for the evaluation.)

Time Range	
<input checked="" type="checkbox"/>	All time ranges
23.02.2008 - 02.03.2008	medlife PC3
01.01.2006 - 01.01.2006	medlife PC3
06.04.2005 - 27.06.2005	medlife PC

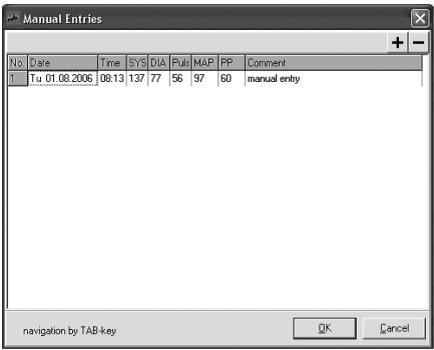
Exclude measurements

To exclude particular a measurement value, double-click the column **"Exc(lude)"** in the applicable line. Afterwards, the value is still shown and marked with a little "x" in the column "Exc". This value will not be used for calculation of statistics such as mean value, maximum or minimum etc.


To undo the exclusion of a value, double-click the "x". The "x" will disappear and the value will be included in all calculations again.

If you want to delete a complete time range, mark the relevant time range and then click **Delete Time Range** .

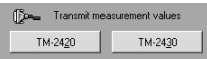
Man Meas. Values



You can add manual entries by clicking on "Man Meas. Values" . If you enter Date, Time, Sys, Dia and Pul, the boso profile-manager3 will automatically calculate MAP and PP. This value will be automatically shown in the chronologically correct line with the comment "manual entry".

The manually entered value can be deleted by clicking "Man. Meas. Value". Then mark the relevant value and click  in the upper right corner on the pop-up window.

To add more measurements click  .



boso-TM2430PC 2

Connect the boso-TM2430PC 2 via the PC-connection cable to the computer. If the connection is successful, the display of the boso-TM2430 shows four hyphens. Now click "TM2430" to start the data transmission.

boso-TM2420PC

Connect the boso-TM2420PC via the connection-unit (TM-2023 or TM2020) to the computer. Start data transmission by clicking "TM2420".

After the data transmission is completed, you have the opportunity to individually select the cycles for daytime and night-time.

Please delete the memory after the data has been successfully transmitted.



boso-medicus PC 2, boso-medilife PC 2(3)

Connect the unit via the PC-connection cable to the computer. If the connection works, you can see nine hyphens on the display of your blood pressure instrument. Click "Transfer measurement" to start data transmission.

After transmission is finished you have to enter the year of the last measurement. Normally it is the current year, which has to be confirmed.

Please mind that after data transmission the memory of the blood pressure instrument is still existing. So please delete the memory on the blood pressure instrument after the data has been successfully transmitted.

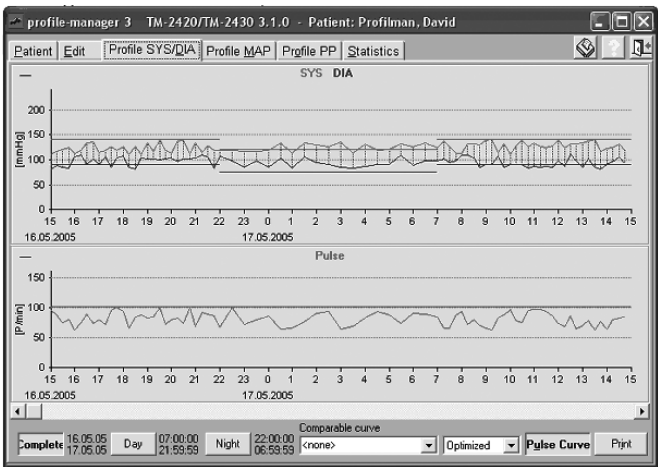


If you click "man Export" the data of the marked time range is exported to the patient information system via the BDT-, GDT- or HL7 protocol.

IMPORTANT: This function is active only if the patient has been transmitted from the patient information system to the boson profile-manager3.

(Deviation profman.exe: the cycles day/night are not available, but you can distinguish blood pressure taken in the morning and blood pressure taken in the evening).

Profile Sys/dia



In the **Profile Sys/Dia** register the progression of blood pressure and pulse are displayed in graph form. You can select the cycles "Day" or "Night" or "Complete" by clicking the buttons on the bottom of the graph.

The pulse curve is either shown or may be hidden if the button "Pulse Curve" is activated or not. If the pulse curve is hidden, the BP-graph is enlarged.

Little black pointers on the bottom of the BP-graph indicate, that a comment supports the value taken at that time.

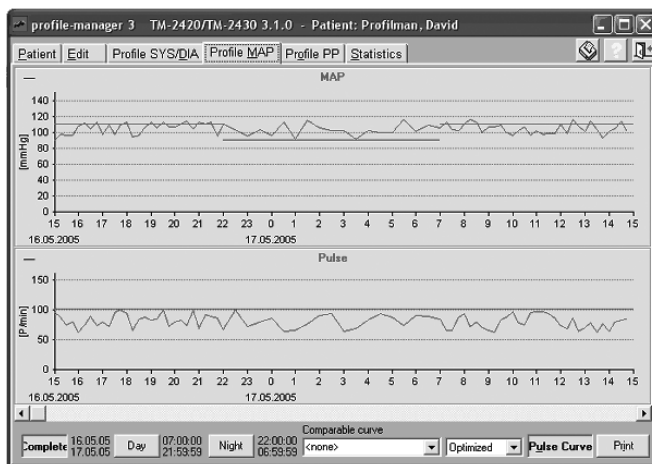
"Comparable curve" gives you the opportunity to insert another time range into the graph to directly compare the two curves.

If you move the cursor on the graphs, the cursor is converted into a little cross and the date/time as well as the relevant value (BP or pulse) are indicated in the upper left section of the graph.

In addition there is the option of a chosen time scale over which measurements are to be displayed. This can be: Day, Week, Month, Quarter and Year. This programme also gives you the choice of an automatic Setting and Display measurement values at the most suitable time reference. To achieve this, select "Optimized".

On the bottom of the graph you can scroll to the left or to the right.

Profile MAP



In the Profile MAP register the progression of mean arterial pressure is displayed in graph form. You can select the cycles "Day" or "Night" or "Complete" by clicking the buttons on the bottom of the graph.

MAP:

The mean arterial pressure is calculated as follows:

$$\text{MAP} = \text{Dia} + 1/3 (\text{Sys} - \text{Dia})$$

Little black pointers on the bottom of the MAP-graph indicate, that a comment supports the value taken at that time.

The pulse curve is either shown or may be hidden if the button "Pulse Curve" is activated or not. If the pulse curve is hidden, the MAP-graph is enlarged.

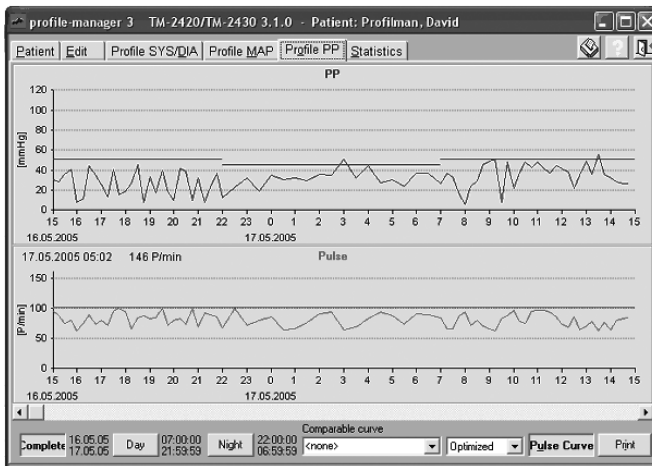
If you move the cursor on the graphs, the cursor is converted into a little cross and the date/time as well as the relevant value (MAP or pulse) are indicated in the upper left section of the graph.

"Comparable curve" gives you the opportunity to insert another time range into the graph to directly compare the two curves.

In addition there is the option of a chosen time scale over which measurements are to be displayed. This can be: Day, Week, Month, Quarter and Year. This programme also gives you the choice of an automatic Setting and Display measurement values at the most suitable time reference. To achieve this, select "Optimized".

On the bottom of the graph you can scroll to the left or to the right.

Profile PP



In the **Profile PP** register the progression of pulse pressure is displayed in graph form. You can select the cycles "Day" or "Night" or "Complete" by clicking the buttons on the bottom of the graph.

PP:

The pulse pressure is calculated as follows:

$$PP = \text{Sys} - \text{Dia}$$

Little black pointers on the bottom of the PP-graph indicate, that a comment supports the value taken at that time.

The pulse curve is either shown or may be hidden if the button "Pulse Curve" is activated or not. If the pulse curve is hidden, the PP-graph is enlarged.

If you move the cursor on the graphs, the cursor is converted into a little cross and the date/time as well as the relevant value (PP or pulse) are indicated in the upper left section of the graph.

"Comparable curve" gives you the opportunity to insert another time range into the graph to directly compare the two curves.

In addition there is the option of a chosen time scale over which measurements are to be displayed. This can be: Day, Week, Month, Quarter and Year. This programme also gives you the choice of an automatic Setting and Display measurement values at the most suitable time reference. To achieve this, select "Optimized".

On the bottom of the graph you can scroll to the left or to the right.

Statistics

profile-manager 3 TM-2420/TM-2430 3.4.0 - Patient: Profilman, David										
Patient					Edit Profile SYS/DIA Profile MAP Profile PP Statistics					
Complete					Day					
Count	78				Count	60				
	Min.	Mean	Max.	StdDev	> limit		Min.	Mean	Max.	StdDev > limit
SYS [mmHg]	110	123.8	139	8.8	26.9 %	SYS [mmHg]	110	124.2	139	9.2 16.7 %
DIA [mmHg]	80	93.6	109	8.9	96.2 %	DIA [mmHg]	80	94.0	109	9.0 73.3 %
Pulse [1/sec]	61	79.5	99	11.0	0.0 %	Pulse [1/sec]	61	79.7	99	10.9 0.0 %
MAP [mmHg]	90	103.7	116	6.8	64.1 %	MAP [mmHg]	90	104.1	116	6.7 23.3 %
PP [mmHg]	5	30.3	55	12.2	1.3 %	PP [mmHg]	5	30.2	55	13.1 1.7 %
Difference day / night					Night					
MBPS	0.6 mmHg				Count	18				
	Min.	Mean	Max.	StdDev	> limit		Min.	Mean	Max.	StdDev > limit
SYS	1.1 %	Fall at night				SYS [mmHg]	112	122.8	134	7.7 50.0 %
DIA	2.0 %	Fall at night				DIA [mmHg]	81	92.1	107	8.5 100.0 %
Pulse	0.9 %	Fall at night				Pulse [1/sec]	63	78.9	98	11.6 0.0 %
MAP	1.7 %	Fall at night				MAP [mmHg]	91	102.3	115	7.3 100.0 %
PP	1.8 %	Raise at night				PP [mmHg]	12	30.7	50	8.8 5.6 %
Complete 16.05.05 17.05.05					Day 07:00:00 21:59:59 Night 22:00:00 06:59:59 Edit...					
					Print					

In the register "Statistics" the measurement values of the whole time range are analysed. The analysis is done separately for day-time and night-time and in total. With „Edit“ start and end of day-time cycle and night-cycle can be changed. The number of measurement values included in each evaluation is shown on top of the table ("Count").

Also the difference day/night is calculated and shown in a separate table.

For all criteria (SYS, DIA, Pulse, MAP and PP) the minimum, mean and maximum values are calculated as well as the standard deviation and the percentage of values exceeding the limits. The limits can be set individually in the register "Patient" and "Setup...".

Morning Blood Pressure Surge (MBPS)

(Deviation profman.exe: MBPS not available)

In the table "Difference Day /Night" the MBPS-value is indicated on top of the table. The MBPS-value is an indicator for the BP-increase in the morning. It is calculated as follows:

$$\text{MBPS} = \text{mean SYS morning} - \text{mean SYS night low}$$

"Mean SYS morning" is defined as the mean value of the systolic BP-values that are measured within the first two hours of the day-time cycle.



"Mean SYS night low" is defined as the mean value of the 3 systolic BP-values that are identified as follows:

- 1) measurement before lowest night systolic pressure
- 2) lowest night systolic pressure measured
- 3) measurement after lowest night systolic pressure

profile-manager 3 TM-2420/TM-2430 3.4.0 Patient: Profilman, David												
Patient		Edit		Profile SYS/DIA		Profile MAP		Profile PP		Statistics		
Complete						Day						
Count		78				Count		60				
		Min.	Mean	Max.	StdDev	> limit		Min.	Mean	Max.	StdDev	> limit
SYS [mmHg]		110	123.8	139	8.8	26.9 %	SYS [mmHg]	110	124.2	139	9.2	16.7 %
DIA [mmHg]		80	93.6	109	8.9	96.2 %	DIA [mmHg]	80	94.0	109	9.0	73.3 %
Pulse [1/sec]		61	79.5	99	11.0	0.0 %	Pulse [1/sec]	61	79.7	99	10.9	0.0 %
MAP [mmHg]		90	103.7	116	6.8	64.1 %	MAP [mmHg]	90	104.1	116	6.7	23.3 %
PP [mmHg]		5	30.3	55	12.2	1.3 %	PP [mmHg]	5	30.2	55	13.1	1.7 %
Difference day / night						Night						
MBPS		0.6 mmHg				Count		18				
		Min.	Mean	Max.	StdDev	> limit		Min.	Mean	Max.	StdDev	> limit
SYS		1.1 %	Fall at night				SYS [mmHg]	112	122.8	134	7.7	50.0 %
DIA		2.0 %	Fall at night				DIA [mmHg]	81	92.1	107	8.5	100.0 %
Pulse		0.9 %	Fall at night				Pulse [1/sec]	63	78.9	98	11.6	0.0 %
MAP		1.7 %	Fall at night				MAP [mmHg]	91	102.3	115	7.3	100.0 %
PP		1.8 %	Raise at night				PP [mmHg]	12	30.7	50	8.8	5.6 %
Complete		16:05:05	Day	07:00:00	Night	22:00:00	Edit ...		Print			
		17:05:05		21:59:59		06:59:59						

In the lower right section of all registers you can start a printout of each individual register by clicking the **Print** button.

INSTRUCTIONS FOR USE (SHORT VERSION)

- Start up Microsoft Windows
- Execute file *install.exe* on Installation CD.
- Follow the instructions shown by the installer.
- Start boso profile-manager3
- Select Patient **New**
- Enter patient data
- Select folder **Edit**
- Connect your boso device to your computer
- Select **Transmit measurement values** 
- Press Start/Stop (only boso-medicus(2)/ boso-medilife PC (2)(3))
- After data transmission, check measurement values.
Exclude unwanted measurements from evaluation.
- View register of your choice
- To print-out Profile and Statistics, select icon 

Contribution to our environment

Used electronic devices and empty batteries should not be thrown away with household waste. They can be disposed of as special waste or handed to a battery collection point. Please contact your local authorities for more information.



1. Warranty

Regardless of the legal terms and conditions of warranty, boso warrant that:

- a) The PC connection cable will be free from defects of manufacture within a period of 24 months from the date of purchase.
- b) The data carrier of the software will be free from material and processing defects within a period of 90 days from the date of purchase.
- c) Due to the warranty under 1.a) and b), boso is obliged to replace the PC connection cable or the data carrier and the software free of charge under the following conditions:
 - The customer/purchaser will give a written notice of the defect to boso either within 24 months after the purchase date in case of a manufacturing defect of the PC connection cable; or within 90 days after the purchase date in case of a material or processing defect of the data carrier of the software; and
 - the defective PC-connecting cable or the defective data carrier of the software will be delivered to your dealer or to
boso
BOSCH + SOHN GmbH u. Co. KG
Bahnhofstr. 64
D-72417 Jungingen / Germany
- d) Further warranty than the warranty under 1.a) to 1.c) will not be granted by boso.

2. Liability

- a) The software delivered to the customer/purchaser complies with the up-to-date stand of development.
- b) Notwithstanding the provisions under 2.c) hereinafter, boso and their dealers shall not be liable for any damage caused by the use of the software. This exemption of liability shall especially apply to incidental and consequential damages, lost profits, damages caused by any loss or any damage of data and any other economic or financial losses.
- c) However, the exemption of liability under 2.b) shall not be effective if we are liable for a damage under the terms and conditions of the Product Liability Act or if a damage is caused by gross negligence or wilful misconduct by ourselves or one of our agents.

Appendix A - What to do when there is a failure / problem

Data cannot be entered in boso profile-manager3

- Check all connections between the boso BP unit, PC adaptor (PC connection cable) and your computer.
- Ensure that the interface connection at the PC has not been reversed. Following this, check the configuration in the „**Setup**“ file (see page 33).
- Check the display of the boso BP unit. If the battery symbol is in the display, change the batteries.

If the problem cannot be remedied by following the above steps, or if you have any queries concerning the Evaluation software, please contact your authorised distributor for assistance.

Transfer successful. No measurements transmitted.

There are no measurements in the memory of the BP unit or previously stored measurements have already been deleted.

Please select a patient before switching to another page.

In order to insert a patient's measurements, the individual person's name has to be selected prior to the transfer of measurements. Without appropriate selection it is not possible to transfer any relevant measurements.

Device ID not recognized

Record ID not recognized

One of the records contains invalid characters

A check sum error has been occurred.

There has been an error during data transmission. Repeat data transmission. If not successful please contact the authorized distributor.

Measurements have been deleted on account of data errors (i.e. leap year?)

If measurements were entered on the 29 February in a leap year, but only called up a year later, these measurements cannot then be allocated. These measurements will be read as invalid by the software and are rejected.

Too early. Measurement device is sending data, please try again.

The Start key on the blood pressure monitor was pressed before the measurement transfer had been started in the profile-manager.

Time over. Did you connect the device to the correct interface? Did you press the START/STOP button?

Transmission is cancelled.

Proceed as described on page 39. If transfer is still not successful, proceed as detailed on page 33.

Data stream is interrupted. End-of-Transmission mark is missing.

Contact your authorized distributor.

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